

Write your name here


Surname	Other names
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**Edexcel**  
**Functional Skills**

Centre Number

Candidate Number

**Mathematics**  
**Level 1**



15-19 November 2010  
**Time: 1 hour 30 minutes**

Paper Reference  
**FSM01/01**

**You must have:**  
Pen, calculator, HB pencil, eraser, ruler graduated in cm and mm, protractor, compasses.

Total Marks

### Instructions

- Use **black** ink or ball-point pen.
- **Fill in the boxes** at the top of this page with your name, centre number and candidate number.
- Answer **all** questions.
- Answer the questions in the spaces provided  
– *there may be more space than you need.*
- **Calculators may be used.**

### Information

- The total mark for this paper is 48.
- The marks for **each** question are shown in brackets  
– *use this as a guide as to how much time to spend on each question.*
- **Where you see this sign you must show clearly how you get your answers because marks will be awarded for your working out.**



### Advice

- Read each question carefully before you start to answer it.
- Show all stages in the calculations.
- Keep an eye on the time.
- Try to answer every question.
- Check your answers if you have time at the end.

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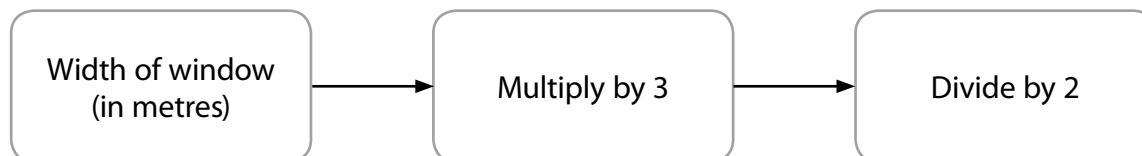
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**SECTION A: In the home**

**Answer all questions in this section.**

**Write your answers in the spaces provided.**

- 1** Amy moves into a new house.  
She needs to buy curtains.  
She knows this rule to calculate the width of a curtain.



The width of a window is 3 m.

(a) What width of curtain does she need? (2)

Use the box below to show your calculations.



Amy sees a curtain that she likes.  
The curtain is 4 m wide.

(b) Will the curtain fit the window? (1)

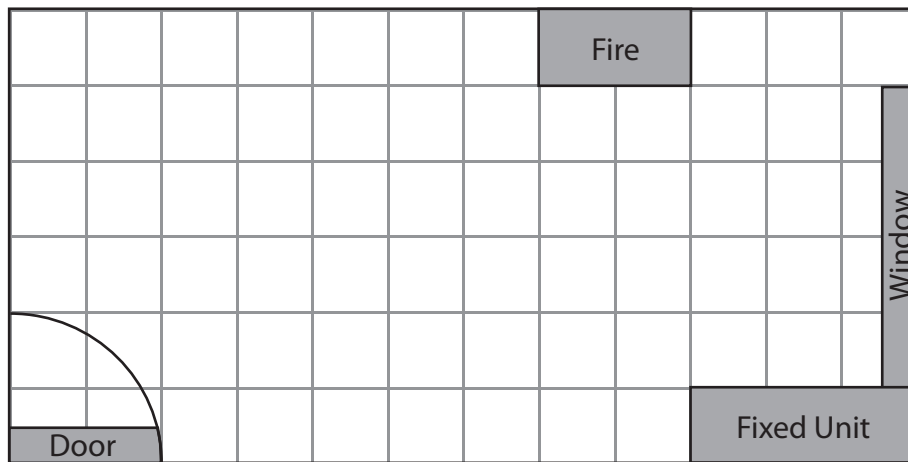
Use the box below to explain your answer.

**(Total for Question 1 is 3 marks)**



- 2 Amy wants new furniture for the living room.  
She needs to plan how the furniture will fit in the room.

She draws a plan of the living room on a centimetre squared grid.



Key: 1 cm on the grid = 50 cm in the living room.

Amy wants a sofa and a table for her living room.

The sofa is 200 cm long and 100 cm wide.

It needs a rectangular floor space.

Amy wants to put the sofa along the wall opposite the fire.

The table is 150 cm by 100 cm.

It needs a rectangular floor space.

The table needs to be at least 100 cm away from the fire.

Draw the sofa and the table on the plan.

(4)

(Total for Question 2 is 4 marks)



3 Amy can buy her furniture from one of three shops.  
Each shop has a different credit plan.

**Top Store  
Credit plan**

Deposit: none  
Monthly cost: £98 per month for 1 year

**House Style  
Credit plan**

Deposit: £350  
Weekly cost: £13 per week for 1 year

**Furniture Place  
Credit plan**

Deposit: £200  
Monthly cost: £72 per month for 1 year

Compare the total cost of these credit plans.  
Which is the cheapest plan for Amy?

(5)

Use the box to show your calculations and comparisons.



A large empty rectangular box for writing calculations and comparisons.





A large, empty rectangular box with rounded corners, intended for writing an answer.

(Total for Question 3 is 5 marks)



H 3 7 6 0 9 A 0 5 2 0

- 4 Amy hires Jason to paint a room.  
She keeps a record of the hours he works.

Monday 9 am-11 am  
Tuesday 2 pm-5 pm  
Friday 10 am-11 am

Jason sends this bill to Amy.

Item	Details	Total
labour	8 hours @ £15 per hour	£120
materials	blue paint £26.65	
	green paint £5.75	£33.30
<b>Total to pay</b>		<b>£153.30</b>

Amy says there are some mistakes on the bill.

She knows:

labour costs £15 per hour  
blue paint costs £26.65  
green paint costs £5.75

Check **all** the information on the bill.  
What is the correct total to pay?

(4)

Use the box below to show clearly how you get your answer.





A large, empty rectangular box with rounded corners, intended for the student's answer to Question 4.

(Total for Question 4 is 4 marks)



H 3 7 6 0 9 A 0 7 2 0

7  
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**SECTION B: The sandwich shop**

**Answer all questions in this section.**

**Write your answers in the spaces provided.**

5 Joe owns a sandwich shop.

The sign shows the opening times of the shop.



A customer buys a sandwich from Joe's shop.

(a) How likely is it that the customer buys this sandwich on a Sunday?  
Explain your answer.

(1)

Customers can order their sandwiches by telephone.

Joe sells

- ham sandwiches with mustard
- ham sandwiches with salad
- cheese sandwiches with pickle
- cheese sandwiches with tomato

Customers can choose from 3 different types of bread for each sandwich.

- white
- wholemeal
- granary

Joe needs a data collection sheet to record customer orders easily.

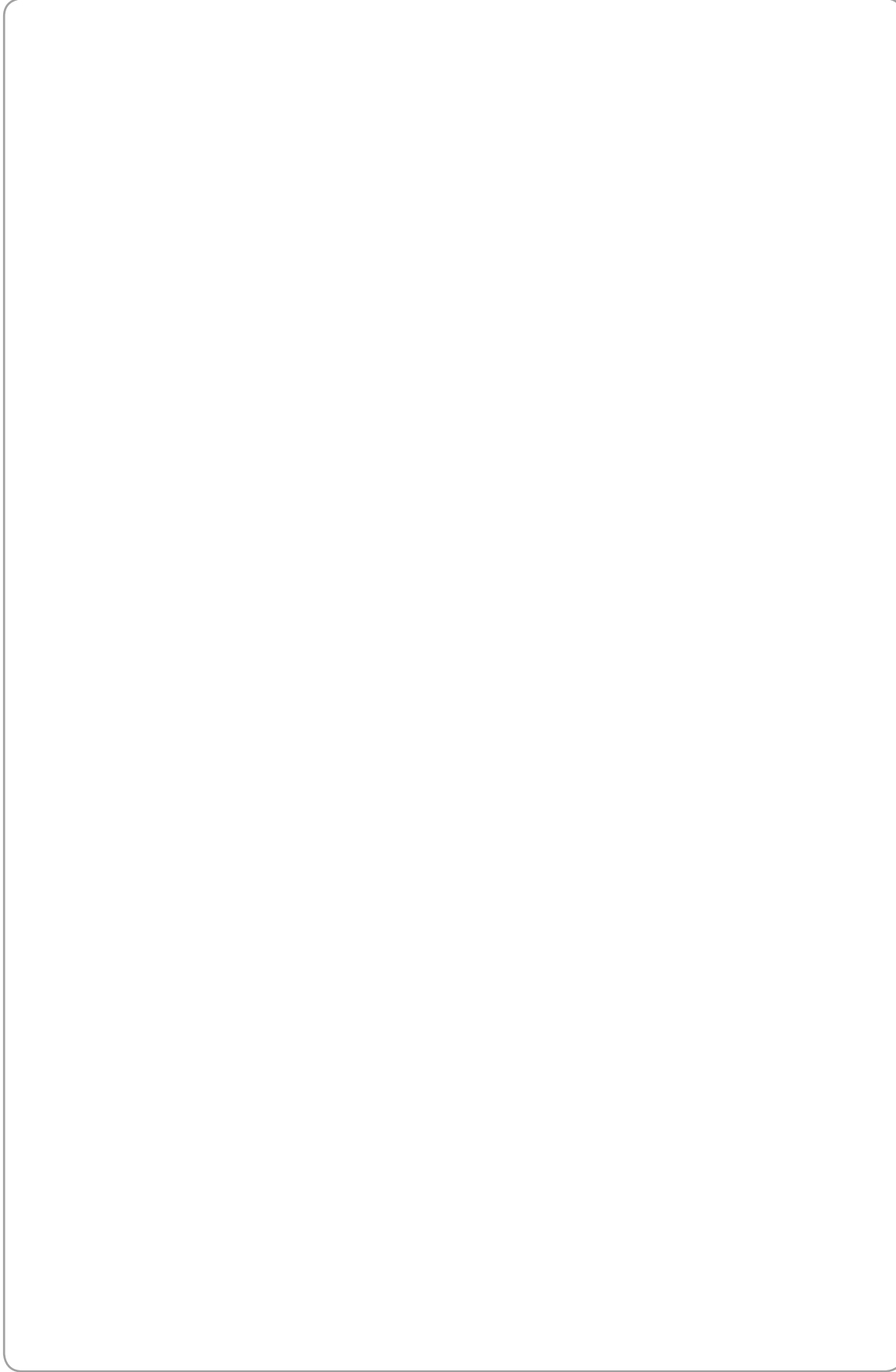




(b) Design a data collection sheet for Joe to use.

(3)

Use the box to show clearly your data collection sheet.



Joe employs Sonia to deliver sandwiches to local companies.

Sonia works from 10 am to 12.30 pm on Monday to Friday.

Joe pays Sonia £6 per hour.

(c) How much does Joe pay Sonia per week?

(2)

Use the box below to show your calculations.



**(Total for Question 5 is 6 marks)**



**6** It costs Joe

58 pence to make a ham sandwich  
51 pence to make a cheese sandwich

Joe makes 20 ham sandwiches and 40 cheese sandwiches each day  
from Monday to Saturday.

Calculate Joe's costs for making these sandwiches for one week. (3)



A large empty rectangular box for writing the answer to the question.

**(Total for Question 6 is 3 marks)**



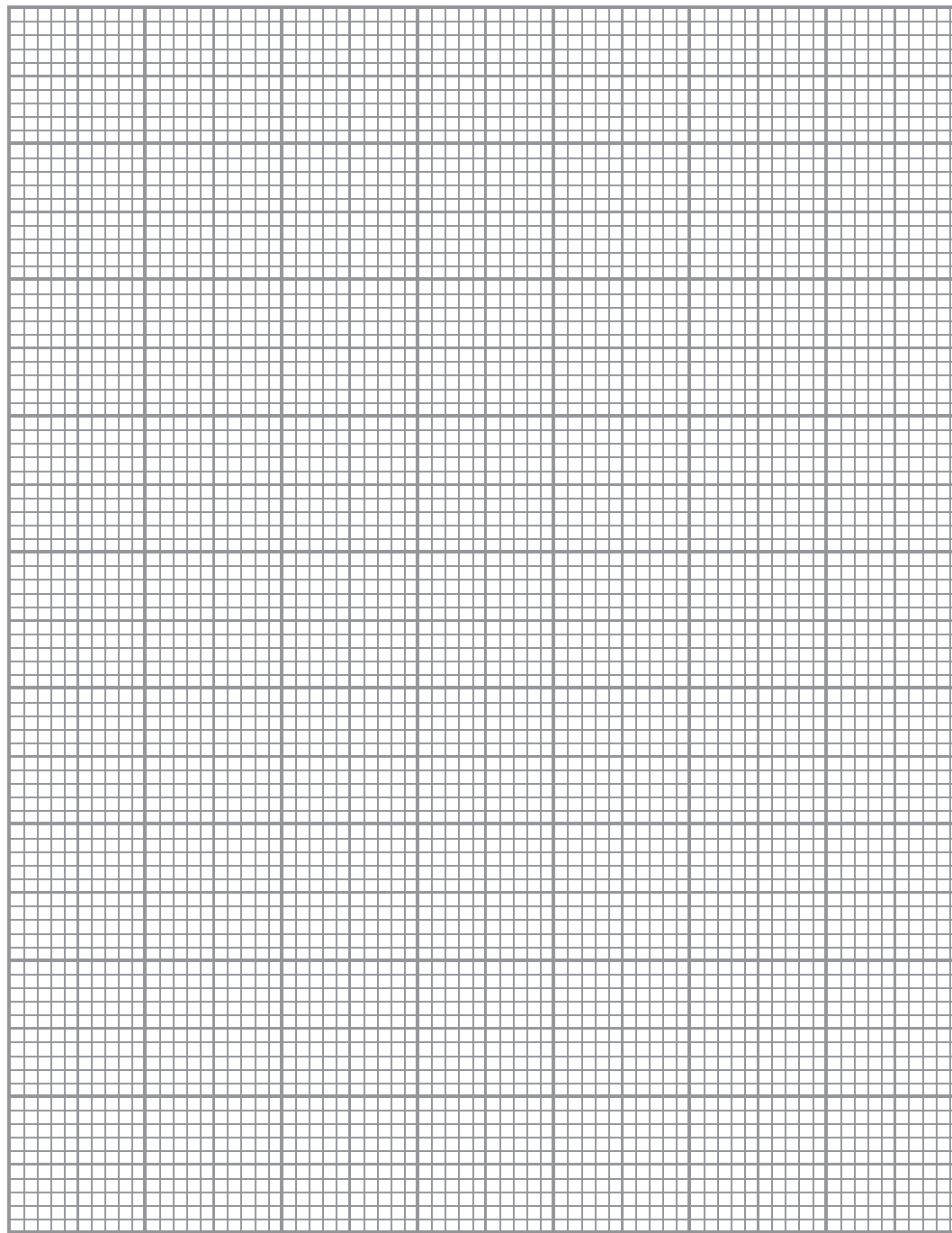
7 The table shows Joe's profits for the first 6 months of the year.

Month	Jan	Feb	Mar	Apr	May	Jun
Profit (£)	900	1100	1300	1200	1400	1600

Joe wants to show this information to his bank manager.

(a) Draw a graph or chart for Joe to use.

(3)



Joe says his business is getting better.

(b) Is Joe right?  
Explain your answer.

(1)

**(Total for Question 7 is 4 marks)**

**8** Joe sells orange drinks in his shop.  
He mixes the orange drinks in the ratio

1 part orange juice for every 5 parts water.

Joe wants to make 12 litres of orange drink.

How many litres of orange juice and how many litres of water does Joe need? (3)

Use the box to show your calculations.



**(Total for Question 8 is 3 marks)**

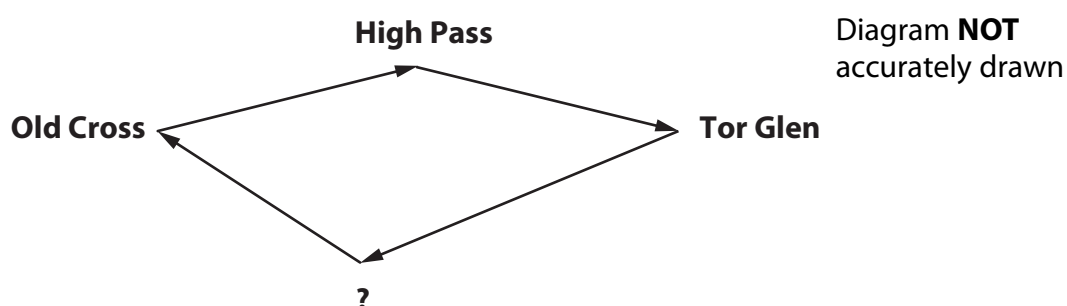


**SECTION C: The fun run**

**Answer all questions in this section.**

**Write your answers in the spaces provided.**

- 9 Karim is planning a fun run.  
The run will start and finish at Old Cross.  
It will go through High Pass, Tor Glen and one other town.



This chart shows distances between some towns in the area.

<b>Old Cross</b>					
1.5 km	<b>High Pass</b>				
2 km	2.5 km	<b>Tor Glen</b>			
4 km	3 km	5 km	<b>Tithe Barn</b>		
2 km	5 km	4 km	5.5 km	<b>Windmill</b>	
5 km	7 km	6.5 km	4 km	2.5 km	<b>Mid Barrow</b>

Karim needs to pick one more town as part of the run.

The total distance for the run must be exactly 10 km.

(a) Which town should Karim pick? (3)

Use the box to show how you get your answer.



Karim wants to print some leaflets to advertise the run.  
He has £30 to spend on leaflets.

Here is a rule to calculate the cost of the printing.

**3 pence per leaflet plus a fixed cost of £10**

(b) Does Karim have enough money to print 500 leaflets?

(3)

Show your calculations and explain your answer here.



Blank area for calculations and explanation.



H 3 7 6 0 9 A 0 1 5 2 0

Karim gives a gift to all the helpers.

He records information in a tally chart about the gift each helper chooses.

Gift	Tally
Key ring	I
Mug	
T-shirt	

The table below shows the cost of each gift.

Gift	Cost
Key ring	85p
Mug	£1
T-shirt	£5

Karim wants to know the total cost of the gifts.

(c) Work out the total cost of the gifts.

(3)

Use the box below to show your calculations.



(Total for Question 9 is 9 marks)





**10** Karim makes notes about the day.

- Run starts at 10 am
- Runners check in 30 minutes before the start
- Helpers begin delivering water to checkpoints 1 hour before run starts
- Be ready for fastest runners to finish after 25 minutes
- Allow up to 3 hours for all runners to finish
- Cleaning up needs 1 hour after run finishes

Karim wants a time plan for the day using this information.

Prepare a time plan for the day.

(3)

**(Total for Question 10 is 3 marks)**



11 Sam is one of the runners.

He checks in to collect his running number.

Running number	Collection point
1–50	Table P
51–100	Table Q
101–150	Table R
151–200	Table S
201–250	Table T

Sam's number is 138

(a) Which table is his collection point?

(1)



Before the start of the run, helpers sort the runners into groups.

The people who run a kilometre in the same time are in a group together.

**Group A**  
Less than 5 minutes per km

**Group B**  
Up to 6 minutes per km

**Group C**  
Up to 7 minutes per km

**Group D**  
Up to 8 minutes per km

**Group E**  
More than 8 minutes per km

Sam thinks he will finish the 10 km run in an hour and a quarter.

(b) Which group will he be in? (3)

Use the box below to show your calculations and decision.



Empty box for calculations and decision.

(Total for Question 11 is 4 marks)

TOTAL FOR PAPER IS 48 MARKS



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